

# Modern demands on accessibility in sensitive architectural space.

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« Tels ils sont construits, tels ils doivent rester. »  
Charles Garnier, *Le théâtre*, 1871, p.61

## **Abstract**

Over the past years, accessibility has become an increasingly important topic which has led to an imposed matter of usability for every type of architectural space. This adjustment of the built space is the result of a social demand on making more environments accessible to all users. However, sometimes these adjustments may destroy the original idea for accessing a building. This dilemma is particularly evident when these demands are to be implemented in protected buildings or built spaces that are based on strong architectural visions. The present study focuses on a sensitive case of architectural space that is confronted with modern demands on accessibility. A close reading method has been applied to the case. The study revolves around the Opéra Garnier in Paris. This 19th century building is to be made accessible by 2015, since the building is open to a public audience. Given its status of an icon building, part of the national architectural heritage, it is likely that the building will enjoy several exemptions. However, a close analysis of the underlying intentions - generating images - for the opera could probably supply a key to how to make this building comparable with modern demands. Such an approach would also be a way for updating similar buildings, and for understanding why architects need to mediate strict demands.

## **Key words**

Accessibility, sensitive space, generator images, architectural visions, close reading.

## **Introduction**

The modern society recognizes that people are different, and that some of us have sensory impairments, visible or not. Such impairments may influence the human perception of space, and relationship between the human body and the built environment.

Everyday, we interact with space and the experience of the built environment will influence our lives. The concept of universal design makes claims for making every building accessible to everyone, regardless of impairment. They should be flexible, simple, accessible and usable without effort. Such adjustments should create similar conditions for dissimilar people to use them. The matter of accessibility and usability is to be implemented during the design process.

Obviously, if this matter is integrated in the design and create an equitable use, then the experience of this space will be accessible to all.

But what about old buildings ? A lot of them do not correspond with modern regulations anyway. Often, these buildings are fixated in past architectural concepts, that can only allow for some changes according to modern demands. Sould we destroy the past concept in order to create an equitable use ?

The first architectural space was the so-called "cabane primitive", often referred to by architectural theorists like Vitruvius or Viollet-Le-Duc. This primitive building was a mere shelter against weather and predators. Following the course of evolution, architectural space expanded, with more practicalities and stories. In this development of space the stair became the first architectural element that allowed for vertical communication. Since then, the stair has achieved other functions like differentiating space or create a protective distance between the indoor space and the outdoor environment.

The stair can be useful in many ways, but today, with acute demands on an increased level of accessibility, stairs are the first architectural element that have had to be adjusted so that everyone can use them without discrimination.

The largest group of people that are affected by discriminatory effect of stairs are people with locomotive problems,

To respond to those new demands for accessibility, some solutions have been found such as the construction of lifts, the introduction of ramps or lifts on the handrail.

Those adaptations change the aesthetic of the space - the original way of using the building. It becomes an issue when we talk about classified buildings, since this group of users was not noticeable before the 20<sup>th</sup> century. The protection of architectural space consider most of the time the history, appearance, concept, impact on the landscape and construction as aspect that need to be preserve from any destruction.

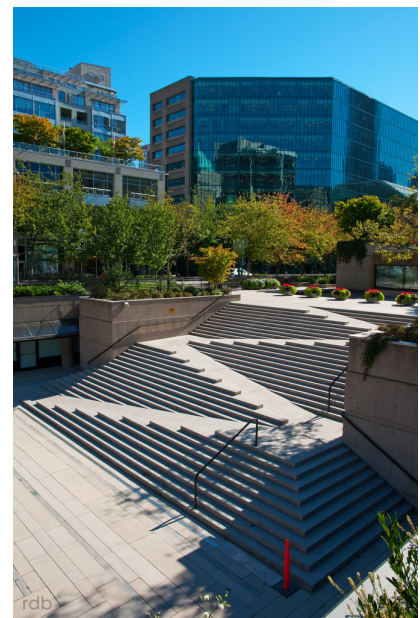
An architectural space can suffer from those adaptations, and losing its value, however the right to access a building should be equivalent for everyone.

The universal design tries to find a way to have an architectural concept considering an equitable access. What would be the design of an entrance in a sensitive space ?

### **Today's implementation of accessibility**

Accessibility to a public space is everyone's right, and it should be designed so that the user doesn't have to make any extra effort when using the space.

Taking the architectural element of stairs, some elegant solutions have been invented. The solution of adding a ramp to the stairs is sometimes perceived as temporary before finding a more efficient adaptation. The idea of integrating a ramp has been adapted in different places around the world, often in public space like the Robson Square in Vancouver, Canada. This design is often referred to as an exemplary model of the implementation of accessibility. For instance, the Swedish branch of the organization Design for all ([www.designforalle.se](http://www.designforalle.se)) suggested a similar solution for the entrance to the Stadshuset in Stockholm, the city hall of Stockholm.



*Robson Square, Vancouver  
(Photography by Dean Bouchard, 2011)*

Integrating a lift platform into the stairs is also a solution to overcome the difference in levels. The Danish enterprise, Guldmann, has a division named Stepless that is specialized in accessibility by use of welfare technology. They propose a

broad range of products, including ramps and lifting platforms.

One example of this use of lift platforms is the adaptation of Folkoperan in Stockholm. Folkoperan is a theater in a listed former cinema building, with a really small entrance. The adaptation needed to be as respectful as possible in order to maintain the original appearance of the place. The lift platform was integrated in the existing entrance stairs.

The device is a 30 cm deep metal box that contains the lifting system. The original granite steps cover this construction. A hole in the staircase was made to insert the device, without destroying the stone that is used to cover the elevator. This technology equals an investment of 20.000-30.000 Euro with additional costs for construction works, but this investment allowed the theater to keep its original aesthetical appearance.



*Folkoperan, Stockholm  
(Guldmann™ projekt värdig entré)*

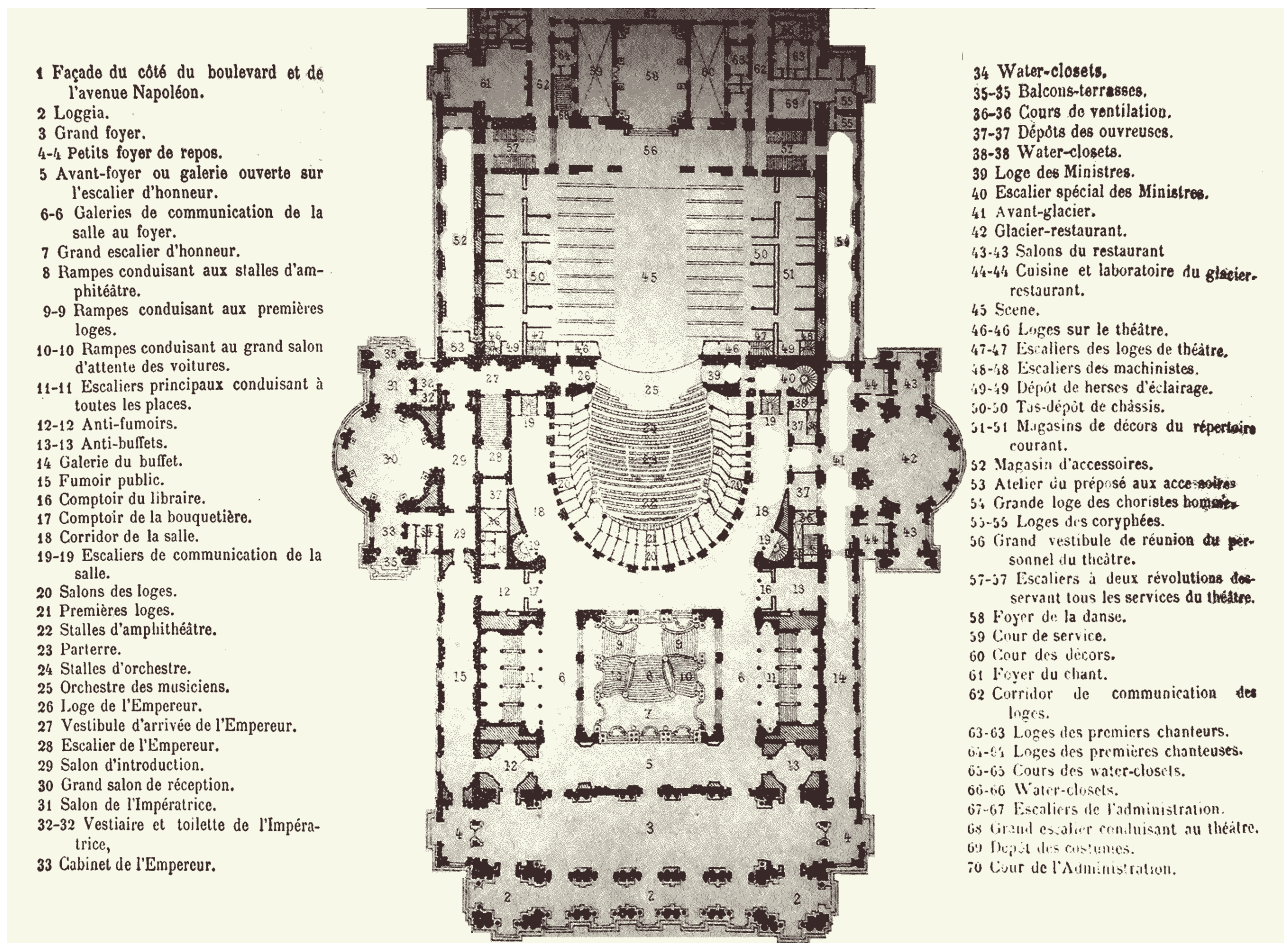
From a universal design point of view, everyone should be able to enjoy any architectural space. However, this approach of accessibility becomes difficult to apply when we talk about sensitive space, like protected buildings. Aesthetical and architectural qualities are protected by cultural heritage laws, so in such case, the universal design approach have to find a solution to improve the accessibility without destroying the original concept for the space.

### **On the architectural origins of Opéra Garnier**

Sensitive spaces are all different, hence, it is difficult to draw a universal conclusion on how to adjust them to modern requirements. Instead, I propose to realize a close reading of the original architectural concepts that are the reasons for protecting a building (Brummett, 2010). Close reading is a method of analysis the researchers tries to assume the role of the original author in order to understand the meaning of the text in question, and taking into account economical and historical conditions.

Applied to architecture, a close reading would be analysing the underlying architectural concepts, which are not always easily understood. The Opéra Garnier is a good exemple of adjusting a historical building to modern demands. It always has been a building open to the public, and now that accessibility demands have changed, the building has to be adjusted once again in order to welcome everyone inside. In addition, the building is an emblematic expression of the 19th century,

Charles Garnier was asked to create the New Opera of Paris, but to be able to do it perfectly, he realized a close survey of several theaters, and finally wrote a book. The book "Le Théâtre" discusses architectural solutions for the theater, and it proposes guidelines for creating the ideal theater building. With this thorough research, Garnier started to create the new parisian opera.



Plan Rez-de-chaussée, Opéra Garnier (Garnier, 1875)

The construction of the Opera Garnier began in 1861. This time period was the golden era of la bourgeoisie, a well-off group of people, who adore to be seen. It was the time when the boulevards became the main hall in a theatre. It is this group of people along with the aristocracy who would attend the new theater. This space had to be a fancy place, but the access to the building had to be limited to these groups.

Charles Garnier analysed a lot of theaters and saw that people didn't stay in the hall. They arrived, queued, took their tickets and entered the theater hall. At the end of the performance, they just left.

The theater itself was regulated by performance requirements like the acoustics and the flow going from one space to another. Garnier's creative input departed from the spectator's experience when entering the building and going into the theatre hall.

His ambition was to create a spectacular space, in which people would spend time, await the performance, and accumulate an unforgettable spatial experience on the same par as the theatrical one.

In order to introduce an organizational aspect in the flow of spectators and an increased access to the building's entrance, Garnier divided the spectators into three categories. People who walked to the theater, people who came by individual carriages or cars, and people who used public transport. Carriages and cars congested the entrance and hindered the free circulation of the pedestrians on the steps to the theater. In Garnier's mind, these steps were part of an open air hall, where people would meet and mingle in



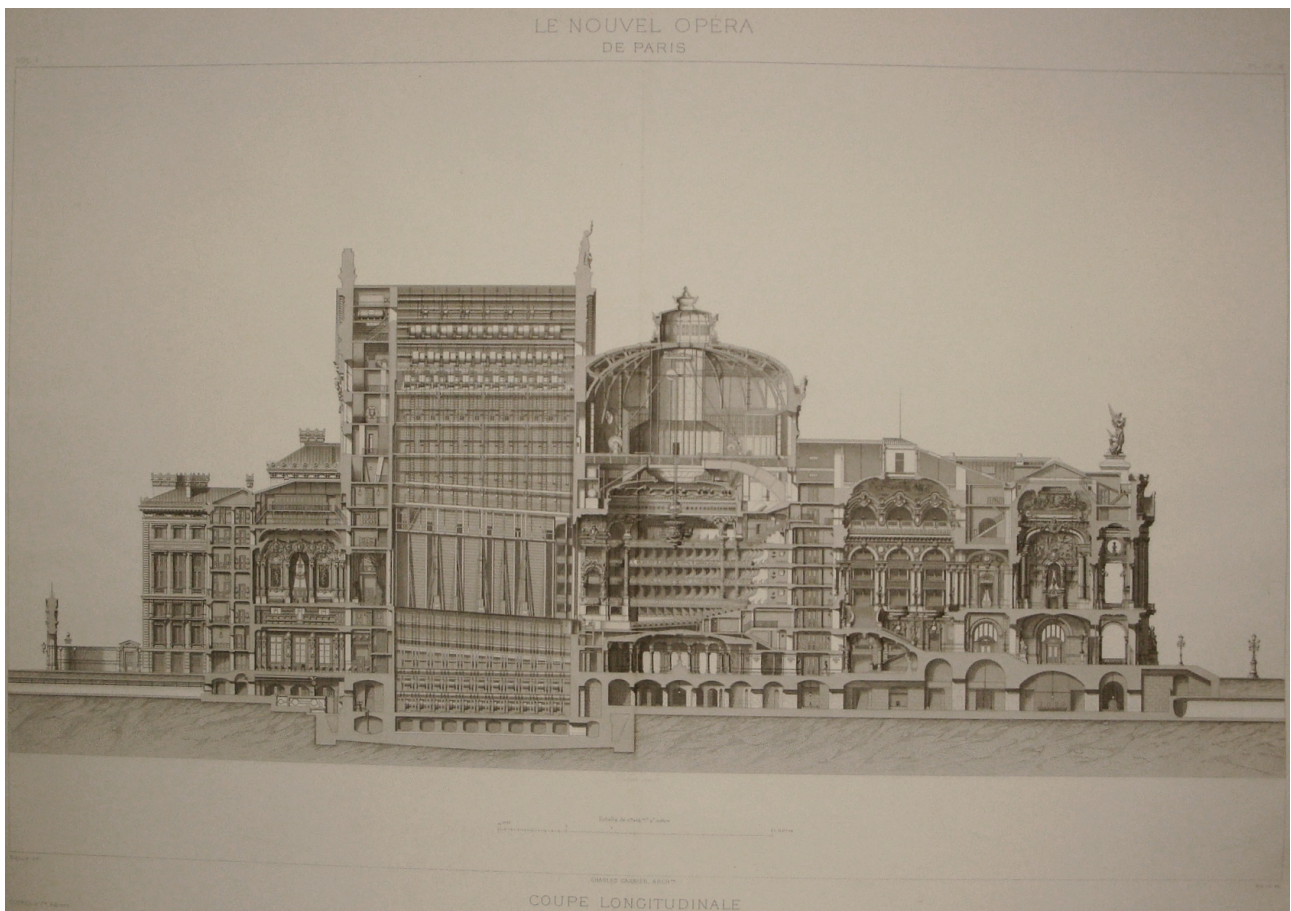
front of the theater. Hence, Garnier created entrance access for people arriving by carriages or cars at the side of the building. This was a covered area and the access to the vestibule went through the ticket office.

At this point, Garnier divided the flow of spectators once again, the ones who had a ticket, and those who did not. Without disturbing the crowd of people, the ticket check was realized just before the entrance to the main theatre room.

For pedestrians, the access to the building was through the grand porch and the exterior entrance gallery. From this gallery, a new porch system opened to a closed waiting gallery. Here in the cloakrooms, the spectators could deposit their coats, buy or find their tickets, and meet up with friends before entering the space just in front of the theatre hall. Here, servants and valets left their masters and this step in the procedure before entering the theatre was made clear by architecture, a minor elevation with a few steps and a festive atmosphere.

The second limit is the checking room, where you are stopped if you don't have a ticket. This was the final step in the control of tickets, once beyond this barrier, you would find yourself in the main vestibule, from which stairs allowed access to the balconies or individual boxes.

This way of controlling the flow of people accessing the building was also applied when leaving it. The control point now served as a waiting room, where people would await their carriages, cars, servants, valets, or finishing off discussions inspired by the performance.



*Section Façade latérale, Opéra Garnier (Garnier, 1875)*

At that time, access to the building was defined by social class, and marked by spatial arrangements rather than doorways.

The entrance was sensibly different in style : the pedestrian entrance, used more by men, was more simple and imposing, whereas the access for carriages and cars, used more by women, was intimate and elegant. It was somewhat elevated in order to facilitate the transition from the carriage/ car to the building given the fact the women wore extravagant robes. In the "Le théâtre", Garnier wrote about equality among spectators in the Great stair and the distinction that social class cast on them :

*« Je sais bien que quelques formalistes égalitaires diront qu'il y a dans cette division initiale [parlant du Grand Escalier] une espèce de défaveur jetée sur une partie des spectateurs, et que le théâtre doit appartenir à tous, sans distinction de catégorie. Je ne verrais certes pas grand mal à ce qu'il en fût ainsi mais s'il faut faire passer deux ou trois mille personnes par le même chemin, ce chemin sera forcément encombré, et si tout le monde était traité de même, il en résulterait que tout le monde serait traité fort mal; je ne vois pas trop alors ce qu'y gagnerait la dignité. Puisque personne ne rougit d'aller au parterre ou aux troisièmes loges, je ne vois pas pourquoi l'on rougirait de s'y rendre par une voie autre que celle suivie par les spectateurs qui vont aux premières loges. Quand, dans la rue, je passe sur les trottoirs, je ne me sens nullement blessé de laisser le" milieu de la chaussée aux voitures : c'est une garantie de sécurité et de circulation plus facile pour tous, et voilà tout. Il n'y a rien là-dedans qui puisse porter atteinte à la dignité de personne. »*

Charles Garnier, Le théâtre, p.61, 1871

In this quote, Garnier defends his idea of separating the three categories of spectators by creating different access points to the building. This idea was innovative, since the traditional idea among defenders of equality was that the theatre would not divide people according to social class. For Garnier, this division is solely motivated out of protecting the spectators from congestion and increase their security in case of emergency. The same kind of separation was applied to access the different seats and boxes. As people are not ashamed to choose a seat categories, they are not ashamed either when they do not follow the same path to access them.

### **The Opéra Garnier in conflict with modern demands.**

In 2006, the French government decided that the implementation of modern demands on accessibility in all buildings open for public use should be accomplished by 2015. Some exemptions were allowed, if these could be motivated out of technical restrictions, status of architectural heritage, or a perceived disproportion between the amelioration and the consequences for the built space.

In the case of the Garnier Opera, some adjustments of the building had been done in order to increase accessibility. In 1920, Aga Khan made the opera install a special elevator for his use only, so that he could access his box (Internet A). It is probable that the elevator was used by others when he was not in Paris. In 2010, this elevator was renovated. The elevator gives the same majestic access to the main vestibule and the boxes of the first balcony as the Grand Escalier. The elevator access is situated at the entrance for

carriages and cars, in line with Garnier's original design.

However, the use of this elevator is restricted : If a person who uses a wheelchair wants to attend a performance, this person has to wait about 45 minutes in order to access the seat in the theatre hall. In addition, this person will not access the building according to the architect's intentions, but through the artists' entrance and accompanied by a member of the opera staff. This access includes several steep ramp ways that lead to another elevator.

After this elevator lift, the person in a wheelchair is seated in a box, however, not adjusted to a person with functional impairments: an ordinary armchair is moved aside (Internet B).

This operation for attending a night at the Garnier Opera might not be too problematic for people who attend just one theatre night. However, the national organization in defence of equal rights for people with cognitive and functional impairments find this situation inconceivable for a national opera. In addition, the organization deplores the fact that the opera also lacks adjusted bathroom space and easily accessible entrance that could be used independently without a member of the opera staff (Internet C, Internet D).

In his book "Le théâtre", Garnier said about the stairs "such they are built, such they should stay." He wanted to have the perfect theater, unfortunately he couldn't imagine the change of accessibility rules.

With new technologies we can adapt a lot of places, respond to new requirements without destroying aesthetical qualities and modifying the original spatial thinking. In some places like Opera Garnier, the architectural intentions are protected, which makes adjustments of the built space even more complicated. In the particular context of the Garnier opera, one solution to make the opera more accessible would be to adapt the "Aga Khan" elevator" for universal usages and make it reach other boxes with adjusted seats. However, adjustments of the grand escalier is inconceivable, since this would be in conflict with the original architectural idea.

However, the smaller steps between the main hall and the pedestrian entrance could be adjusted along the same system that was used at the Folkoperan. Maybe, the porch could be fitted with a ramp, so that this entrance could be in use again.

Opening the two original entrances to the public would respect the original concept, but it would make it almost impossible to sell tickets to visit the space. During the 20th century, this building was also visited for experiencing the architectural accomplishment.

## **Conclusion**

To conclude, I would say that protected buildings should be adjusted as much as possible, without destroying the original concept and the spatial experience. Perhaps, we need to know more about the original concept to be able to design an adapted access.

The use of the building, the financial state and increased tourism have imposed new conditions for existing buildings.

To respect an original realization, we have to retrace the historical evolution of the building to influence more sensitive solutions for accessibility in such buildings.



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- Internet B : [www.handicap.blogs.liberation.fr/ma\\_vie\\_en\\_fauteuil](http://www.handicap.blogs.liberation.fr/ma_vie_en_fauteuil) is a blof from Liberation, a french newspaper, and the author is a young paraplegic mother that tells about her life. [http://handicap.blogs.liberation.fr/ma\\_vie\\_en\\_fauteuil/2011/03/a-lopera-garnier-les-rampes-garnies-de-rouge.html](http://handicap.blogs.liberation.fr/ma_vie_en_fauteuil/2011/03/a-lopera-garnier-les-rampes-garnies-de-rouge.html)
- Internet C : [www.yanous.com](http://www.yanous.com) is a francophone magazine about disabilities. It publishes articles with different themes and have a new publication every two weeks. <http://www.yanous.com/pratique/culture/culture071123.html>
- Internet D : [reglementationsaccessibilite.blogs.apf.asso.fr/media/00/01/1330542498.doc](http://reglementationsaccessibilite.blogs.apf.asso.fr/media/00/01/1330542498.doc) is the answer from the Service Accessibilité Universelle about a request on adapted bathrooms of Opéra Garnier and Opéra de la Bastille.

## **Illustrations**

- C.Garnier, *Le nouvel opéra de Paris*, Ducher, 1878-1891) : Plan et Coupe latérale, Opéra Garnier
- D. Bouchard, photography found on [www.twistedstifer.com/2012/06/ramps-blended-and-integrated-into-stairs](http://www.twistedstifer.com/2012/06/ramps-blended-and-integrated-into-stairs)
- Folkoperan staircase found on [www.guldmann.se/Default.aspx?ID=4869](http://www.guldmann.se/Default.aspx?ID=4869)

## Traduction

*« Je sais bien que quelques formalistes égalitaires diront qu'il y a dans cette division initiale [parlant du Grand Escalier] une espèce de défaveur jetée sur une partie des spectateurs, et que le théâtre doit appartenir à tous, sans distinction de catégorie. Je ne verrais certes pas grand mal à ce qu'il en fût ainsi mais s'il faut faire passer deux ou trois mille personnes par le même chemin, ce chemin sera forcément encombré, et si tout le monde était traité de même, il en résulterait que tout le monde serait traité fort mal; je ne vois pas trop alors ce qu'y gagnerait la dignité. Puisque personne ne rougit d'aller au parterre ou aux troisièmes loges, je ne vois pas pourquoi l'on rougirait de s'y rendre par une voie autre que celle suivie par les spectateurs qui vont aux premières loges. Quand, dans la rue, je passe sur les trottoirs, je ne me sens nullement blessé de laisser le " milieu de la chaussée aux voitures : c'est une garantie de sécurité et de circulation plus facile pour tous, et voilà tout. Il n'y a rien là-dedans qui puisse porter atteinte à la dignité de personne. »*

Charles Garnier, Le théâtre, p.61

*« I know some egalitarian formalists would say that there is in this initial division [speaking of the Great Stair] a kind of disadvantage thrown on some spectators, and that the theater has to belong to everyone, regardless of class. I certainly would see no harm to do so, but if two or three thousand people have to go along the same path, this path will inevitably be crowded, and if everyone was treated the same, it results that everyone would be treated badly ; I do not see so what would be gained from it. Since no one blushed to go to the parterre or the third boxes, I do not see why we would blush to access them through a different way than the spectators of the first boxes. When, in the street, I pass on the sidewalk, I do not feel hurt to let the "middle of the road" to cars : this is a guarantee of safety and makes circulation easier for everone, and that is all. There is nothing in there that could undermine the dignity of a person. »*

Charles Garnier, Le théâtre, p.61